



DEPARTMENT OF THE NAVY

NAVAL SEA SYSTEMS COMMAND
2531 JEFFERSON DAVIS HWY
ARLINGTON VA 22242-5160

IN REPLY REFER TO

NAVSEAINST 3968.1

Ser 03P

21 Mar 97

NAVSEA INSTRUCTION 3968.1

From: Commander, Naval Sea Systems Command

Subj: NAVY COORDINATED UNDERWATER EXPLOSION TESTING AT ABERDEEN PROVING GROUND

Ref: (a) DoD Directive 3200.11, 29 Sep 1980 (NOTAL)
(b) NAVSEAINST 5400.1, NAVSEA Organization Manual

1. Purpose. To establish policies, procedures, and responsibilities for the conduct of Navy sponsored testing at the Underwater Explosion Test Facility (UTF) at Aberdeen Proving Ground, and to establish procedures for Navy central coordination of testing at the facility.

2. Background. The Aberdeen Proving Ground is the site of two unique facilities used by Navy activities to conduct underwater explosion tests. The Briar Point Test Pond Facility is a shallow depth pond used primarily for conducting underwater explosion shock qualification tests of mission critical surface ship and submarine components. The larger UTF was recently constructed at Aberdeen Proving Ground to facilitate land-based testing of full-scale submersible shock test vehicles. Growing concerns related to minimizing environmental effects at previously used protected water and open ocean test sites, such as the Chesapeake Bay and the San Clemente Island area, prompted the Navy to sponsor development of the Aberdeen UTF facility. These facilities are capable of supporting a broad range of Navy research, development, test and evaluation (RDT&E) efforts, including system shock hardening, ship survivability and vulnerability testing, warhead developmental testing, and non-explosive testing requirements (e.g., foreign weapons system evaluation and mine countermeasure operations).

3. Policy

a. It is Department of the Navy existing policy that underwater explosion (UNDEX) tests, including shock qualification testing of mission critical equipments to meet ship survivability requirements, warhead development, weapons assessments, and mine countermeasure operations, shall be performed as an integral part of a broad range of RDT&E and ship acquisition programs. UNDEX expertise within established Navy activities will be combined with Army explosives expertise and UTF facility operations to form joint-service underwater explosive test teams. The following policy applies to all phases of coordinated planning and implementation of UNDEX tests at the UTF.



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b. Coordinated Navy Planning. Coordinated planning and centralized technical management oversight of Navy underwater explosion tests at the Aberdeen facilities shall be used to provide the most efficient liaison between Navy-sponsored programs and Army supporting activities. This coordinated approach to UTF facility usage will ensure that testing projects, funded and directed by Navy sponsoring activities, will achieve desired results without loss of continuity in applying management as well as technical lessons learned. Coordinated planning and liaison with the Army will also support scheduling procedures which afford priority to Navy testing programs while allowing for non-Navy UTF utilization. Performance of tests or trials not utilizing explosive charges shall also be planned and implemented within the framework of this instruction.

c. Safety Programs. Explosive safety and safe field testing practices shall be emphasized in planning and implementing all Navy UNDEX tests at the UTF. Safety programs and applicable safety directives shall be implemented and all test team participants and site visitors shall be appropriately indoctrinated.

d. Environmental Compliance. All Navy Test Programs shall prepare a Test Plan which identifies the nature of the planned tests, and provides additional technical details including the size and type of explosive charges to be tested, and the position of the explosive charges relative to the bottom and side walls of the UTF. All documentation pertaining to protecting environmental resources shall be established and maintained in accordance with applicable directives. All planned tests shall meet environmental restrictions and safety criteria for protecting the integrity of the UTF.

e. Joint-Service Cooperation. Utilization of combined Navy and Army resources provides the most efficient path to achieving Department of Defense economies, while maintaining Navy technical skill areas, and satisfying applicable environmental protection regulations. Effective inter-service communication and cooperation shall be supported by all activities associated with testing at the UTF. Consistent with the objective of conducting testing efficiently with minimal cost, the memorandum of agreement discussed in paragraph 6.a below will address procedure/practices to be followed by industrial and test organizations. Cumbersome work practices will be avoided and experience/expertise of Navy industrial activities (public and private) with work on submerged vessels will be considered to achieve this goal.

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f. Technical Skill Base Retention. Existing Navy technical expertise related to UNDEX technologies shall be used to provide continuity of effort and to serve long term Navy test and evaluation requirements related to UNDEX technology development. Navy UNDEX test team participants shall provide technical expertise in areas such as: underwater weapons effectiveness, ship and submarine shock survivability and vulnerability, UNDEX instrumentation and data acquisition, UNDEX data analysis, technical photography, test operations support, Navy test vehicle high-speed photography and video, warhead development and testing, foreign weapons systems evaluation, and special operations.

4. Scope. The provisions of this instruction are applicable to all Department of the Navy components and their contractors requiring the usage of the UTF and Navy assets at Aberdeen Proving Ground. This instruction applies to coordinated Navy usage of the Aberdeen facilities, including tests and trials whether or not explosive charges are employed.

5. Definitions. UTF - For the purposes of this instruction the acronym UTF shall refer collectively to the Underwater Explosion Test Facility and the Briar Point Test Pond Facility at the U.S. Army, Aberdeen Test Center (ATC), Aberdeen Proving Ground, Maryland.

6. Responsibilities and Actions

a. Commander, Naval Sea Systems Command. The Commander, Naval Sea Systems Command shall exercise Navy headquarters authority in establishing policy and procedures for coordinated Navy testing. NAVSEA 03P shall:

(1) Establish policies and procedures consistent with reference (a) for coordinated Navy testing at the UTF.

(2) Establish and maintain a Memorandum of Agreement with the Army which documents the framework for inter-service cooperation in planning and conducting tests at the UTF, including financial responsibilities and safety.

(3) Coordinate prioritization of testing periods and adjudicating facility usage by Navy activities.

(4) Provide technical management assistance for Navy programs performing tests at the UTF as required.

(5) Provide Navy review and concurrence of all planned modifications or improvements to the UTF.

(6) Exercise custodial authority for all Navy shock testing vehicles and equipment located at the UTF.

(7) Provide technical management assistance as required to the test sponsor to establish security classification levels for test plans and test results.

(8) Maintain the Navy UTF Testing Schedule.

(9) Develop guidelines consistent with reference (a) for financial responsibilities pertaining to the maintenance and upkeep of Navy assets at the UTF, and establish budgeting procedures and responsibilities with the Army for facility usage, maintenance, repairs, and alterations.

b. Commander, Naval Surface Warfare Center, Carderock Division. The Commander, Naval Surface Warfare Center, Carderock Division (NSWCCD) shall establish the Navy UTF Project Office to support coordinated Navy testing at the UTF. NSWCCD shall:

(1) Implement the policies and procedures established by NAVSEA 03P for coordinated Navy testing at the UTF, and provide quarterly inputs to NAVSEA 03P for updating the Navy UTF Testing Schedule.

(2) Establish standard operating procedures for sponsor test planning support, including preliminary planning, UTF coordination and liaison, project cost estimates, and detailed test plans as required.

(3) Prepare testing cost estimates using inputs from ATC based on facility usage requirements by all test team participants, and provide funding to the UTF for all authorized Navy test support, at no additional cost to the sponsoring activity for the ATC funding requirements.

(4) Ensure that all planned Navy tests meet applicable environmental restrictions and safety criteria for protecting the integrity of the UTF and the safety of test team participants.

(5) Review and provide Navy concurrence for all Standard Operating Procedures pertaining to explosives safety.

(6) Ensure that Navy test team participants are properly indoctrinated and follow applicable safety directives.

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(7) Provide expertise and technical support to program sponsors in detailed test planning and engineering, UNDEX data acquisition systems, measurements, technical photography and video services, high speed photography, test vehicle operations and positioning support, test geometry verification, and data analysis as required for all Navy programs performing tests at the UTF.

(8) Coordinate and schedule test vehicle usage, and ensure that proper repair and preservation efforts are planned and implemented to maintain the structural integrity of Navy test vehicles.

c. Navy Program Managers. Direct reporting program managers, program offices, or program managers within systems commands and warfare centers requiring use of the UTF shall:

(1) Contact the NSWCCD Navy UTF Project Office to initiate test planning and scheduling.

(2) Plan, fund, and authorize the conduct of tests at the UTF to meet program requirements.

(3) Plan and fund alterations to the UTF facility and test vehicles that are required to support project specific testing requirements, and prior to the test put the test vehicles into serviceable condition suitable for the testing required.

(4) Provide funding for UTF utilization and Army support services through the Navy UTF Project Office, NSWCCD.

(5) Establish the test team organization and approve test team participants.

(6) Establish classification levels and control distribution of test results, including test data, photographs, high speed films, and videos if applicable.


(7) Be responsible for planning and funding equipment installation, maintenance, repair, removal, and replacement of test components in shock test vehicles as applicable.

d. Director, Naval Nuclear Propulsion Program. As outlined in reference (b), Executive Order 12344, statutorily prescribed by P.L. 98-525 (42 U.S.C. 7158, note), establishes the responsibilities and authorities of the Deputy Commander, Nuclear Propulsion Directorate (SEA 08) (who is also the Director, Naval Nuclear Propulsion Program, N00N, in the Office of Chief of Naval

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Operations) over all facilities and activities which comprise the Program, a joint Department of Energy (DOE)/Navy organization. These responsibilities and authorities include all technical and logistical matters related to naval nuclear propulsion. Accordingly, nothing in this instruction supersedes or changes those responsibilities and authorities.


G. R. STERNER

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